TABLE 1

FCC Model with Addition of Churn Variable

Source	SS	df	MS		
Model	45.3354441	5	9.06708882	Prob > F	0.0000

Number of obs = 377
F(5, 371) = 172.14
Prob > F = 0.0000

FCC Model Applied to Basic Tier Price
(including equipment)

Source	SS	df	MS
Model	52.3841652	5	10.476833
Residual	41.3755868	371	.111524493
Total	93.759752	376	.249361042

Number of obs =	377
F(5, 371) =	93.94
Prob > F =	0.0000
R-square =	0.5587
Adj R-square =	0.5528
Root MSE =	.33395

ltotbppc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
abc	-.1096951	.0393736	-2.786	0.006	-.1871185	-.0322717
recipsub	9.577705	3.131981	3.058	0.002	3.419044	15.73637
lbchan	-.9591049	.0623066	-15.393	0.000	-1.081623	-.8365865
lbsat	.1328732	.0284775	4.666	0.000	.0768756	.1888708
dlbsat	-.133905	.0584911	-2.289	0.023	-.2489205	-.0188894
_cons	2.509701	.1489248	16.852	0.000	2.216859	2.802544

Note:

Dependent variable ("ltotbppc") is the basic tier price per channel adjusted to exclude franchise fees and include equipment revenues. These calculations followed the FCC's description of its data transformations for the price per channel variable except the price of tiers 2 and 3 was not included.

Independent variables:

"lbchan" equals the log of total basic tier channels.
"lbsat" equals the log of basic tier satellite channels.
"dlbsat" equals a dummy for the observations where there were no basic tier satellite channels.

FCC Model Applied to Tier 2 and 3 Prices

Source	SS	df	MS
Model	11.6254015	7	1.66077164
Residual	90.7336161	230	.394493983
Total	102.359018	237	.431894589

Number of obs	=	238
F(7, 230)	=	4.21
Prob > F	=	0.0002
R-square	=	0.1136
Adj R-square	=	0.0866
Root MSE	=	.62809

lwtier23	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
abc	-.0795172	.0990854	-0.803	0.423	-.2747484	.115714
recipsub	14.03415	18.62592	0.753	0.452	-22.66509	50.73339
lnchan	-.9067234	.3614367	-2.509	0.013	-1.618874	-.1945731
lbchan	.4215576	.2339556	1.802	0.073	-.0394127	.8825278
lnsat	.1994456	.1986214	1.004	0.316	-.1919045	.5907957
lbsat	-.1749709	.08704	-2.010	0.046	-.3464686	-.0034731
dlbsat	.2020427	.1154188	1.751	0.081	-.0253707	.429456
_cons	.6193954	.5803523	1.067	0.287	-.5240912	1.762882

Note:

Dependent variable ("lwtier23") is the tier 2 and tier 3 price per channel adjusted to exclude franchise fees. These calculations followed the FCC's description of its data transformations for the price per channel variable except basic and equipment revenue was not included and the base subscribers are tier 2 subscribers.

Independent variables:

"lbchan" equals the log of total basic tier channels.
"lbsat" equals the log of basic tier satellite channels.
"dlbsat" equals a dummy for the observations where there were no basic tier satellite channels.

THE SOCIAL COSTS OF TIER NEUTRAL RATE REGULATION

Prepared for

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By

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THE SOCIAL COSTS OF TIER NEUTRAL REGULATION[1]

The Federal Communications Commission's Cable Rate Regulation Order implements the provisions of the 1992 Cable Act that apply to basic and cable programming service pricing.[2] The Commission has adopted regulations that are more detailed and burdensome than necessary to accomplish the goals of the Act. In arriving at this set of rules, the Commission failed to consider the costs of regulation along with the benefits.

"Tier neutral" cable rate regulation is the source of some of the most significant problems with the new rules. Under tier neutrality, benchmark prices will be the same for both basic and cable programming services. However, there are significant differences between the statutory treatment, economic attributes, and public interest characteristics of basic and cable programming services. These differences lead to separate public policy goals, which in turn justify the application of separate regulatory tools.

The Commission's failure to tailor regulation to the unique characteristics of basic and cable programming services will add to the significant social cost of cable regulation without providing compensating benefits. Additional public and private enforcement costs, reduced programming quality, and restricted consumer choice are all possible as a result of the decision to make regulation tier neutral. These problems are compounded by the way in which tier neutral rate regulation has been implemented.

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[1] I submitted a statement with the Comments of Time Warner Entertainment Company, L.P. in this proceeding at the Notice stage. See "Economics of Cable Television Regulation," January 27, 1993. A copy of my resume was submitted with that statement.

[2] Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992 -- Rate Regulation, MM Docket 92-266, released May 3, 1993.

As the Comments demonstrated, the cable industry has been performing well in a number of important respects since deregulation in 1986. There has been rapid growth in subscribership, programming options have proliferated, and cable programming ratings have increased. The cable industry has made substantial investments to increase capacity and reliability. These investments, and the technological advances they will enable, will support new telecommunications services for consumers. Along with this growing capital investment, employment in the cable industry has increased substantially. The Commission's rate regulation rules threaten this progress.[3]

Section I reviews the rationale for separate regulatory treatment of basic and cable programming services. Negative incentive effects created by the Commission's new rules are explained in Section II. The additional costs of administering tier neutral regulation are discussed in Section III. The conclusions are in Section IV.

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[3] A more extensive discussion of cable industry performance is contained in "Economics of Cable Television Regulation,"*supra*, note 1. The Consumer Federation of America (CFA) claims that this performance is no better than the performance in the period of regulation. CFA Reply Comments, p. 87-89. The CFA ignores the fact that percentage improvement was much easier to obtain in the pre-deregulation period when the base of subscribers and other performance variables was much smaller. Moreover, in the earlier period, regulation took a much different form than that adopted by the Commission in this proceeding. Finally, the Commission had preempted regulation of all but basic services in 1983.

I. BASIC CABLE AND CABLE PROGRAMMING SERVICES REQUIRE SEPARATE REGULATORY TREATMENT[4]

Congress could have adopted tier neutral regulation simply by failing to distinguish between basic and cable programming services in the Act. Instead, Congress provided separate definitions for the two services, subjected the two services to regulation by separate jurisdictions, and applied a separate set of enforcement procedures to each. But most telling of all, there is a sound public policy rationale for this separate legal treatment of the two types of service.[5] This public policy rationale is grounded in both economics and previously articulated Congressional and Commission social policy.[6]

Cable television is not a single homogeneous service. Rather, it is a collection of services, each with different supply and demand characteristics. This is reflected in the congressionally provided definitions. Basic service was defined to include a set of local commercial and public broadcast stations as well as the public, educational and government (PEG) programming necessary to meet franchise requirements. Cable programming service was defined to include programming offered in tiers in addition to the basic service tier. Services offered on a per channel or per program basis were excluded from the cable programming service category.

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[4] This Section summarizes the analysis contained in "Economics of Cable Television Regulation," *supra*, note 1, pp. 9-16.

It is reasonable to view basic service as providing principally an antenna function that complements traditional over the air broadcasting. The rationale for regulating basic service is that, in many cases, consumers receive only a limited number of over-the-air basic broadcast signals. Sometimes the over-the-air signals that are received are poor quality. For these consumers, cable may be an important alternative.

By definition, cable programming services will not include the over-the-air and other public interest channels included in the basic tier. The services offered on cable programming tiers are competitive with, rather than complementary to, over-the-air television. When a subscriber views news, movies, situation comedies, reruns of old network programming, documentaries or sports on a cable programming service offering, he or she is making a choice of that programming instead of a basically similar, albeit more limited, set of programs available over-the-air or on the basic tier. Stated alternatively, basic service is a necessary complement to what Congress viewed as essential broadcast programming, while cable programming service is a discretionary substitute. This reasoning alone justifies separate standards for basic and cable programming service regulation.

An additional rationale for establishing separate regulatory standards for the two services is that the cost of regulation will vary between the two. Cable operators are required to deliver the statutorily mandated basic signals so there is no issue as to the quantity and quality of the programs that are delivered. Moreover, given that the over-the-air signals carried as a part of basic service are financed and produced independently, the quality of basic services will not be subject to regulatory distortions.

Regulating the quality of service dimension of cable programming services is much more complicated. Cable operators will have discretion over how much they spend to deliver cable programming services. Attempting to ensure reasonable rates will therefore be more difficult and could involve regulators in second guessing the program choices of cable operators, with troublesome First Amendment implications. Additional quality of service issues are discussed below.

II. TIER NEUTRAL REGULATION WILL REDUCE SOCIAL WELFARE[7]

By applying the same benchmark methodology to both basic and cable programming services, the Commission has dramatically raised the social cost of cable regulation. These costs include direct public and private enforcement costs as well as the costs associated with regulation induced distortions. In its discussions of the benefits to consumers of cable rate regulation, the Commission has ignored these significant static and dynamic costs. Regulatory distortions are discussed in this section. The direct enforcement costs are described in the next section.

A. Tier neutral regulation eliminated essential regulatory safety valves

The Commission's regulatory framework eliminates significant safety valves that were built into the proposals for benchmark regulation put forward in this proceeding. The National Cable Television Association (NCTA), for example, suggested that a competitive benchmark for basic services could be constructed through a statistical comparison of systems

[7] These issues are discussed in Daniel Kelley, "Economic Issues Raised by the Further Notice," filed with the Comments of Time Warner Entertainment Company, L. P., in the Further Notice of Proposed Rulemaking, June 17, 1993. Rather than cross-reference that submission, relevant portions have been incorporated here.

subject to effective competition, as defined by the Act, and systems whose basic rates are to be regulated. In recognition of the inherent imprecision in this type of analysis, a "zone of reasonableness" was suggested. Instead of setting the benchmark by reference to the simple difference between the mean rates of competitive and regulated systems, the benchmark would be at the upper end of a reasonable range above the mean of the competitive systems.[8] In other words, an interval rather than a point estimate would be used to establish the benchmark.

Zones of reasonableness are common in ratemaking generally. Indeed, the Commission has applied this concept in other contexts. For example, under the price cap rules, local exchange carriers are allowed to earn substantially more than the allowed rate of return without reducing their rates. Prior to price cap regulation, rate of return estimates themselves were set within a zone of reasonableness to reflect imprecision in the process of arriving at an allowed rate of return and to accomplish ancillary goals, such as encouraging efficiency.

The statistical analysis used to establish benchmark rates illustrates the problems created by the failure to use a zone of reasonableness for cable rate regulation. There are a number of technical shortcomings with the Commission's regression model and the data that

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[8] Bruce M. Owen, Michael G. Baumann, and Harold W. Furchtgott-Roth, Cable Rate Regulation: A Multi-Stage Benchmark Approach, January 27, 1993, pp. 14-15 (filed with the Comments of the National Cable Television Association). As Owen *et al* note, "...to focus on the median competitive price is to lose sight of the fact that one-half of the competitive systems have rates above the median." p. 14.

it uses.[9] For example, competitive effects vary substantially across system size. However, the Commission's sample is heavily weighted towards smaller systems. Therefore, establishing a benchmark based on the unweighted industry average leads to statistical results that are not descriptive of the systems that serve most subscribers. Another problem is due to the noncompetitive systems. However, there are important policy arguments in favor of erring on the side of allowing some rates that may be "too high." Consistent with the 1992 Cable Act, the enforcement burden would be minimized. At the same time, the rates most likely to be found unreasonable under a cost of service showing would be reduced. On the other hand, the rates that would escape reduction are the ones closest to the benchmark. [11]

The benchmark for cable programming services suggested by the NCTA and others was based on identifying and reducing rates that are outside a zone of reasonableness based on the mean rates of regulated systems.[12] In effect, the suggestion was that the zone of reasonableness for cable programming services should be larger than the zone of reasonableness for basic service rates. The differences between basic and cable programming services described above justify this approach.

Given the diversity of the cable industry, the critical cost drivers for individual firms vary widely. Therefore, any single basic rate benchmark approach is likely to generate incorrect results for many systems. With the broader zone of reasonableness for cable programming services, cable operators might have the opportunity to earn a reasonable overall rate of return without having to resort to the necessity of both a publicly and privately burdensome rate of return showing. Moreover, this approach allows a significant reduction in regulation and regulation induced distortions.

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[11] Sec. 3(b)(2)(A) of the 1992 Cable Act requires the Commission to "...reduce the administrative burdens on subscribers, cable operators, franchising authorities, and the Commission."

[12] See "Economics of Cable Television Regulation," *supra*, note 1, pp. 9-16.

By removing the safety valves provided by separate regulation of the two types of service, the Commission has created several problems. Most of these problems stem from the fact that many more firms will find themselves subject to a binding benchmark or rate of return regulatory constraint. As discussed below, the regulatory distortions due to binding regulatory constraints can take many forms.

B. Tier neutral regulation will lead to reductions in the quality of service

As discussed above, quality is an important dimension of cable industry performance. Consumers have responded to this quality improvement by subscribing to the service and viewing the programming. The incentive effects of binding regulation on service quality differ depending upon whether benchmark or cost of service regulation is applied.

Cable companies are managed to create value for shareholders. This is the proper goal of all firms in a market economy. Faced with a new set of rules, cable operators will optimize their operations to achieve their goals. One clear possibility is that, faced with benchmarks that do not allow reasonable profits, firms will reduce their investment in quality programming for basic cable or cable programming services. Consumer welfare will suffer as a result.

This response to regulation is not an "evasion." It is impossible, and undesirable, for government to legislate against profit-maximizing firms acting on all of the incentives that make markets work.[13] The choice of programming inputs is an inherently subjective

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[13] The problems with quality regulation have been less severe in the regulated telephone sector. First, rate of return regulation has, if anything, created a bias towards excessive capital investment. Second, it is much easier to measure the quality dimension in the telephone business.

process. The detailed and complicated oversight of programming inputs recommended by the CFA demonstrates the problems with embarking on this path.[14]

The CFA is forced to construct an arbitrary "quality index" based on the number of "top 30" programming networks offered by the cable system. Cable operators would be penalized for adjusting their programming in ways that lower this index. One obvious effect of this rule would be to create incentives to drop programming that appeals to minority tastes and to retain general appeal programming. Moreover, the ability of cable operators to make changes in their programming would be limited. This would reduce competition among top cable networks and lower incentives to develop minority programming.[15]

The Commission has adopted a price cap mechanism for adjusting future benchmark rates in an attempt to address the quality issue. However, at least two particular features of the price cap mechanism the Commission will use to reflect programming cost increases will firms to evade price cap regulation may be legitimate, less draconian measures to remedy the concern are possible. For example, consistent with the Commission's common carrier rules, arms-length transfer pricing of programming could be required.

Second, the Commission will not allow initial retransmission consent fees to be flowed through. The rationale for this delay is that current rates reflect the value rather than the cost of local broadcast signals. Even if this were true, the conclusion reached by the Commission is incorrect. The rates for basic services will be set by reference to a benchmark determined by the rates charged by statutorily competitive firms. Competitive systems presumably compete away the implicit value of over-the-air signals. Therefore, retransmission consent fees must be treated as external.

C. Tier neutral regulation will result in a significant increase in rate of return regulation

An additional indirect, but potentially large, cost of tier neutral regulation is that more companies will be operating under the incentives created by rate of return regulation. This will lead to inefficient use of resources. Rate of return regulated firms may <u>overinvest</u> in capital and programming inputs. Cable regulation could lead to two very different types of firms -- those that underspend to comply with the benchmarks and those that overspend in response to rate of return regulation. Economic inefficiency, and a consequent reduction in consumer welfare, would be the common element.

In general, the greater the rate reduction, the more effort that management will have to expend to react to its effects. Therefore, an excessive regulatory constraint may harm consumers by diverting valuable management resources from the job of positioning cable to compete in evolving telecommunications businesses to the job of reorganizing their firms to react to regulatory requirements and incentives. This effect is in addition to specific potential negative effects on programming quality.

D. Tier neutral regulation will lead to inefficient tiering arrangements

Yet another problem with tier neutral regulation is that it will create perverse incentives for cable operators to bundle basic and cable programming services into the same tier. As the CFA explained in the comment round:

> The key point here is that the ability to add programming to the basic service as a prerequisite for access to either expanded basic or per-channel or per program services allows the cable operator to charge more for basic than its value. Access is bundled into the basic tier. Even where over-the-air signal[s] might be competitive, this bundling gives cable operators the opportunity to exercise market power. People pay for something they <u>apparently</u> could get for free because they are <u>actually</u> buying something else, access to the multiple channels.[18]

Of course, the Commission could react to this potential problem by adopting yet another set of complicated and burdensome conduct regulations. However, a regulatory structure that recognizes the differences between basic and cable programming services and applies appropriate regulatory tools to each would provide built-in incentives to unbundle basic programming services, with consequent consumer benefits.

This problem illustrates the fact that the entire concept of tier neutrality is flawed. Rather than solving problems, tier neutrality creates them. While seemingly a regulatory short cut, the reality is that tier neutrality simply does not work.

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[18] Comments of CFA, p. 60. (emphasis in original)

E. The Commission's framework is too rigid

Another problem with the benchmark approach adopted by the Commission is that it is too rigid. If firms cannot earn a reasonable return by charging the benchmark rates, they go directly to full-blown rate of return regulation. Cable companies should have the flexibility to justify rates based on unique cost burdens. For example, demographics, terrain or unusually large PEG obligations can all lead to higher rates. While a cost of service showing will demonstrate the reasonableness of these rates, a simpler procedure may work just as well.

F. Tier neutrality will result in negative spillover effects

The cable industry has been investing substantial amounts of dollars in modernizing its plant and making it capable of offering new video and other telecommunications services. Reductions to operating margins could reduce the flow of resources into the industry and potentially jeopardize some of this investment. Negative spillover effects on performance in businesses adjacent to the cable industry is a possible result. For example, the potential for competition in the local exchange business could be reduced if regulation of the cable industry reduces margins below competitive levels.[19]

[19] See "Economics of Cable Television Regulation," *supra*, note 1, p. 5.

III. TIER NEUTRAL REGULATION WILL RAISE REGULATORY ENFORCEMENT COSTS

There will be rate cases filed with local and federal regulators.[20] These cases will be costly in terms of both time and money. Cable companies, local regulators and the Commission will bear the costs directly as they commit resources to the regulatory process. Consumers will ultimately bear those costs. The cost of regulation to companies will be recovered from consumers through rates while the cost of enforcing the regulations will be borne by taxpayers. Moreover, it seems reasonable to assume that a significant number of the additional rate cases will succeed. As discussed above, under the Commission's model, 29 percent of systems will be misclassified.[21] In those cases, consumers may not see rate reductions, but the additional regulatory costs will still be incurred.

The difficulty the Commission is having in implementing its new rules illustrates the problems that are caused by tier neutrality and by some of the specific ways the Commission is implementing its regulation. As the Commission recently pointed out:

> ....under the rate regulations adopted in the Report and Order, the Commission must inter alia: print and distribute certification forms; process franchise certifications; review petitions for reconsideration and revocations of certification approvals; review showings by franchise authorities concerning their inability to regulate basic franchise rates; address cable operators' requests for effective competition data from competitors; process appeals from basic service rate determinations; regulate the basic service tier where local franchise authority certification is denied or revoked or where the authority is otherwise unable to regulate; print and distribute complaint forms for cable programming services; print and distribute Form 393, which cable operators

[20] As noted in "Economic Issues Raised by the Further Notice," *supra*, note 7, proposals to reduce rates by more than the 10 percent already ordered will increase the number of necessary cost of service showings.

[21] See, "Econometric Assessment of the FCC's Benchmark Model," *supra,* note 9.

will use to determine initial regulated rates; adjudicate complaints regarding cable programming services by reviewing benchmark and cost-of-service showings; publish and distribute forms used to determine external costs; review external cost showings; and adjudicate leased access complaints.[22]

Of course, many of these tasks are statutorily mandated. But the amount of paperwork and regulatory costs generally will be much higher with tier neutral regulation than with other less burdensome, but still effective forms of regulation.

The effort required to engage in cost of service regulation must not be underestimated.[23] The efficient allocation of Commission regulatory resources must also be considered. Expending marginal Commission resource dollars on excessive cable regulation will reduce the flow of resources to common carrier regulation during a period when technological developments are creating both new competitive opportunities and regulatory challenges.[24] This, of course, will add to the social welfare costs of cable regulation.

IV. CONCLUSION

There are sound public policy reasons for separate regulatory treatment of basic and cable programming services. The failure by the Commission to tailor regulation for these

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[22] Order, deferring implementation of cable service rate regulation, released June 15, 1993, p. 2.

[23] I participated in the Commission's most recent local exchange carrier cost of capital proceeding by directing the analytical efforts of one of the members of the Consumer Coalition. See Order, Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, CC Docket No. 89-264, Released December 7, 1990. Although that proceeding was initiated in 1989, appellate procedures were only recently completed. The Consumer Coalition consisted of the CFA, the International Communications Association, and MCI Telecommunications Corporation.

[24] See "Impact of Absorbing Cable Act Costs," attachment to the Commission's June 4, letter to Congress describing Commission resource shortages. This attachment also explains that cable regulation activities could delay the introduction of new mass media services that might compete with cable television.

two services creates negative incentive effects. Resources devoted to quality will be misallocated and the incidence of rate of return regulation will be increased unnecessarily. Therefore, the Commission should revisit its decision to apply the same rate regulations to basic and cable programming services.